

REMARKS

Claims 1-40 are pending in the application. Claims 1, 2, 5-30 and 33-40 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,434,535 to Kupka et al. Claims 3, 4, 31 and 32 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Kupka in view of U.S. Patent 5,961,602 to Thompson et al. With entry of the foregoing changes, claims 1, 3, 4, 23, 29, 31, 32, and 40 are now amended.

Claim Formalities

Claims 1 and 23 are now amended to replace “the data store” with “the content store” in order to correct antecedent basis.

35 U.S.C. §102 Rejection

The Examiner rejected claims 1, 2, 5-30, and 33-40 under 35 U.S.C. §102(e) as being anticipated by Kupka. In particular, the Examiner is of the opinion that Kupka schedules a download of content to targeted network devices and downloads criteria for activating the content. We respectfully disagree.

Kupka does not teach or suggest scheduling content downloads from a content store to targeted network devices at all. Rather, in Kupka, content is downloaded from a vendor server in response to requests for content that is selected by a user. In particular, Kupka discloses a system and method for distribution of electronic content over a network infrastructure and compensation of vendors of such content using prepaid storage media (See Abstract).

Referring to Fig. 1 of Kupka, a system is provided in which client devices 20 select and then request download electronic content from vendor servers 16c onto prepaid storage media 28. The system includes a media tracking server 16a, a media manufacturer server 16b, and a vendor server 16c. Each storage media 28 contained in the client devices 20 is previously formatted by the media manufacturer server 16b with a unique identifier (Kupka, col. 10, lns. 46-62). This unique identifier is also stored in the media tracking server 16a along with an assigned prepaid value that can be used for purchasing and downloading content from vendor servers 16c (Kupka, col. 11, lns. 17-45).

To download electronic content from the vendor server 16c, a user initiates the process by submitting a request for the selected content through a client device 20. The vendor server 16c forwards the unique identifier of the storage media 28 to the media tracking server 16a which grants or denies the request. In particular, the request is granted if the identifier is valid and the corresponding balance of the prepaid value is sufficient to cover the cost of the selected content. If so, the media tracking server 16a responds with a positive acknowledgment that enables the vendor server 16c to download the selected content to the client device 20. Otherwise, a rejection process is initiated. (Kupka, col. 13, ln. 18 through col. 16, ln. 63)

Thus, in Kupka, content is downloaded by a vendor server to a client only in response to a request from that client. These requests may be granted or denied by the media tracking server. However, the control of when and which content is downloaded is handled by the client devices under the direction of a user. Furthermore, because the client devices select the content for download, the client devices are not targeted network devices to which content downloads are scheduled.

For at least these reasons, Kupka does not teach or suggest scheduling a download of content to targeted network devices.

Kupka also does not teach or suggest downloading criteria for activating the content on the target devices. At best, Kupka discloses a method for activating the storage media such that the unique identifier for the storage media is registered for downloading content. Referring to Fig. 6 of Kupka, a client device attempts to register the unique identifier of its storage media with the media tracking server. If the identifier is valid and has not been previously registered, the media tracking server 16a responds with an affirmative confirmation to the client device. This confirmation notifies application software residing in the client device that the software may utilize the media for purchase and download of content. Otherwise, the media tracking server 16a returns a negative confirmation, resulting in the application software rejecting the storage media 28.

In contrast, the present invention downloads criteria for activating the content on the targeted network devices. For example, activation criteria can be a predetermined date, time and optional duration, start message, or other various event conditions that can trigger activation of

content (e.g., application launched, promotion displayed, etc). Kupka does not teach any system or method for downloading criteria for activating content on a target device.

For at least these reasons, Kupka does not teach or suggest scheduling a download of content from a content store to targeted network devices and downloading criteria for activating the content on the targeted network devices.

Zigmond

The Applicant directs the Examiner's attention to an international publication WO 99 66719 A to Zigmond et al, entitled "Techniques for Intelligent Video Ad Insertion." Zigmond was cited in a written opinion of International Patent Application No. PCT/US01/04921, which is a foreign counterpart of the present U.S. application. The Applicants cited this reference in a Fifth Supplemental Information Disclosure Statement that was entered by the Examiner on September 12, 2003.

Zigmond discloses a content provider system that transmits advertising content in addition to a normal video programming feed for storage in an advertising content repository. The advertising content is then inserted in the normal video program content at predetermined times or in response to a triggered event.

However, the present invention is not merely directed at downloading and activating content on network devices. Rather, as indicated by claim 1 as originally filed, the present invention is actually directed at "scheduling a download of content from a data store to targeted network devices and downloading criteria for activation of the content on the targeted device." (Emphasis added).

Claims 1, 23, 29, and 40 have been amended to clarify that the present invention schedules content download and activation to a targeted group of devices by generating individual scheduling messages for the targeted network devices and then initiating download of the scheduling messages to the targeted devices. The targeted network devices then download and activate the content according to the scheduling messages. Thus, the present invention controls the scheduling of content download and activation for a group of targeted devices as opposed to the devices themselves.

Support for the amendments to claims 1, 23, 29 and 40 may be found at least in Figs. 4A-4D, which illustrate scheduling messages in the form of (i) download and install messages and (ii) download, install, and start messages. These scheduling messages are sent to all network devices whose user profiles match the attributes of a group profile (page 23, lines 7-13). In the case where a download and install message is delivered, the message directs the target device to download the targeted content and to wait for a start message to activate the content (Fig. 4C, page 26, lines 1-17). Alternatively, when a download, install and start message is delivered, a target device downloads the targeted content and activates the content at a predetermined date/time (Fig. 4B, page 24, line 16 to page 25, line 22) or in response to a particular event (Fig. 4D, page 27, line 10 to page 28, line 6) as indicated in the message.

Zigmond does not teach or suggest Applicant's invention as now recited in claims 1, 23, 29, and 40. In particular, Zigmond discloses an advertisement insertion device for toggling between a video programming feed and selected advertisements for display in a home entertainment system. Referring to Figs. 3 and 5 of Zigmond, the ad insertion device 60, 80, such as a web TV box, is located within a household device 56 and receives a plurality of advertisements. From these advertisements, the ad insertion device selects advertisements for display according to locally stored viewer/system information system 82 and ad selection criteria 83. Upon receiving a trigger signal, the ad insertion device switches from the video programming feed to a selected advertisement for display.

In the disclosed embodiments, Zigmond does not teach Applicants' system and method for scheduling for content download and activation for targeted network devices by generating individual messages for targeted devices to schedule content download and activation and then initiating delivery of the scheduling messages to the targeted devices.

We note that Zigmond mentions that "[o]ther examples of suitable ad insertion devices 60 may have some components thereof at household 56 and other components at a remote location," and that "selection of appropriate advertisements for a particular household may be conducted at a remote location, with the selected advertisements being transmitted to household at the appropriate time by multiplexing multiple video streams or by use of a conventional telephone network or another communication infrastructure." (see Zigmond, page 10, line 26 through page 11, line 6).

However, the mere suggestion that selected advertisements may be transmitted using a “communication infrastructure” does not anticipate all possible communication infrastructures. Even the ubiquitous TCP/IP protocol does not suggest generating an initiating delivery of scheduling messages prior to data transfers. Thus, Zigmond also does not teach or suggest generating individual messages for targeted devices to schedule content download and activation and then initiating delivery of the scheduling messages to the targeted devices, as now recited in claims 1, 23, 29, and 40.

For at least these reasons, claims 1, 23, 29, and 40 are novel and nonobvious in view of the prior art of record.

By virtue of their dependency from claims 1, 23, and 29, the rejection of claims 2, 5-22, 24-28, 30, 33-39 is also traversed. These claims are now allowable in view of the prior art of record.

35 U.S.C. §103 Rejection

The Examiner rejected claims 3, 4, 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over Kupka in view of U.S. Patent 5,961,602 Thompson et al. In particular, the Examiner acknowledges that Kupka does not specifically disclose scheduling content downloads to targeted network devices during typical periods of low network usage or when usage of the data network falls below a predetermined level. However, the Examiner is of the opinion that Thompson discloses these features.

In particular, Thompson discloses a method of caching web content from multiple web servers on a web client. The method involves the user defining a set of one or more servers from which content is desired to be retrieved and stored in the web client’s cache. (See Abstract). Referring to Figs. 2 and 5, the web client includes a cache control 225 and a link monitor 229. The client cache control 225 downloads content from a list of “favorite” web sites during an “off period” to avoid traffic congestion at the web sites. During the download period, the client link monitor 229 determines the activity level over the communication link 227. If the activity level for the link is less than a given threshold, additional requests for content are issued to the client cache control 225. This process continues until the download period expires.

In contrast, the present invention schedules content download and activation to a targeted group of devices by generating individual scheduling messages for the targeted network devices and then initiating download of the scheduling messages to the targeted devices. The targeted network devices then download and activate the content according to the scheduling messages. Thus, the present invention controls the scheduling of content download and activation for a group of targeted devices as opposed to the devices themselves.

In particular, the present invention can generate individual scheduling messages that schedule content downloads during periods when usage of the data network is typically low, as now recited in claims 3 and 31. The present invention can also generate individual scheduling message that schedule content downloads when the usage of the data network falls below a predetermined level, as now recited in claims 4 and 32. By pushing these scheduling message to the targeted devices, the targeted devices can be directed to download content in a timely and bandwidth efficient manner.

In Thompson, however, the web clients themselves control the scheduling of the content downloads instead of having the clients download the content according to individual scheduling messages delivered to them. Furthermore, because the web client themselves select the content for download, the client are not targeted network devices to which content downloads are scheduled.

For at least these reasons, claims 3, 4, 31 and 32 are also novel and nonobvious in view of the prior art of record.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,
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